



# Nonattainment Issues

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# Nonattainment Issues

Issues to be addressed:

- ❑ Revised Ozone National Ambient Air Quality Standard (NAAQS)
- ❑ Fine Particle NAAQS



# Nonattainment

Formal designation by EPA  
that an area does not meet a standard  
or  
contributes to an area  
not meeting the standard.



# Consequences of Nonattainment

- Considered to have unhealthy air
- Transportation planning must consider air quality impacts
- Obstacles to growth of large new industries



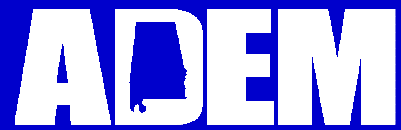
## Ozone - What is it?

- Ground level ozone - not stratospheric ozone.
- Colorless gas formed on dry, sunny, hot, stagnant days April - October.
- Primarily a problem in and near metropolitan areas.
- Not directly emitted.
- Pollutants which form ozone come from many sources.



## Previous Ozone NAAQS

- Set in 1997.
- 85 parts per billion (ppb) over an 8 hour average.
- The format of the standard is a rolling 3-year average.
- Jefferson and Shelby are the only 2 counties that exceed.



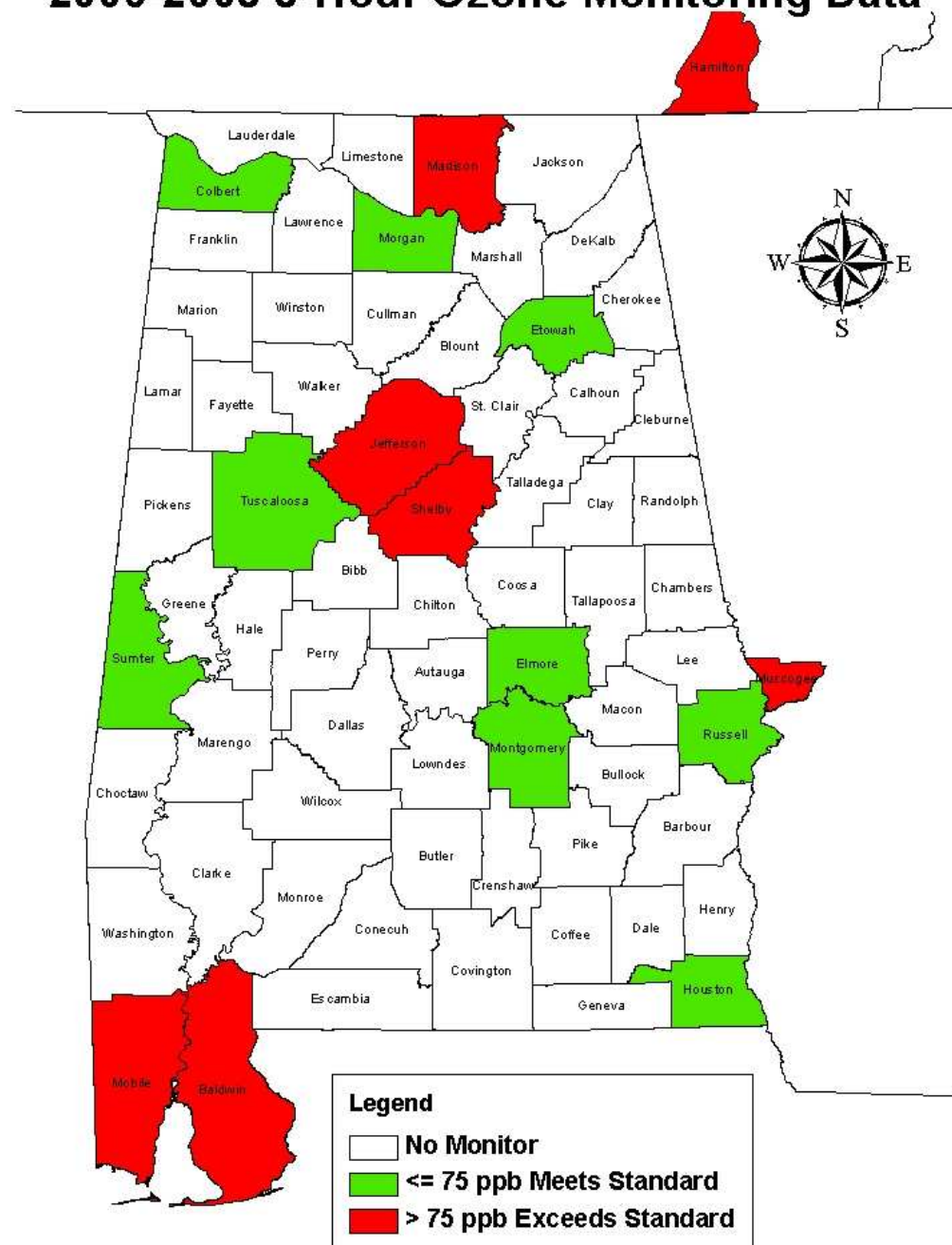
## Revised Ozone NAAQS

- In March, 2008, EPA revised the standard to 75 ppb.
- An area meets the standard if the rolling three-year average is 75 ppb or lower.
- 8 counties do not meet this revised standard.

# ADEM

**Counties  
Over the Revised  
Eight - Hour Ozone  
NAAQS of 75 ppb**

## 2006-2008 8-Hour Ozone Monitoring Data







# Revised Ozone NAAQS

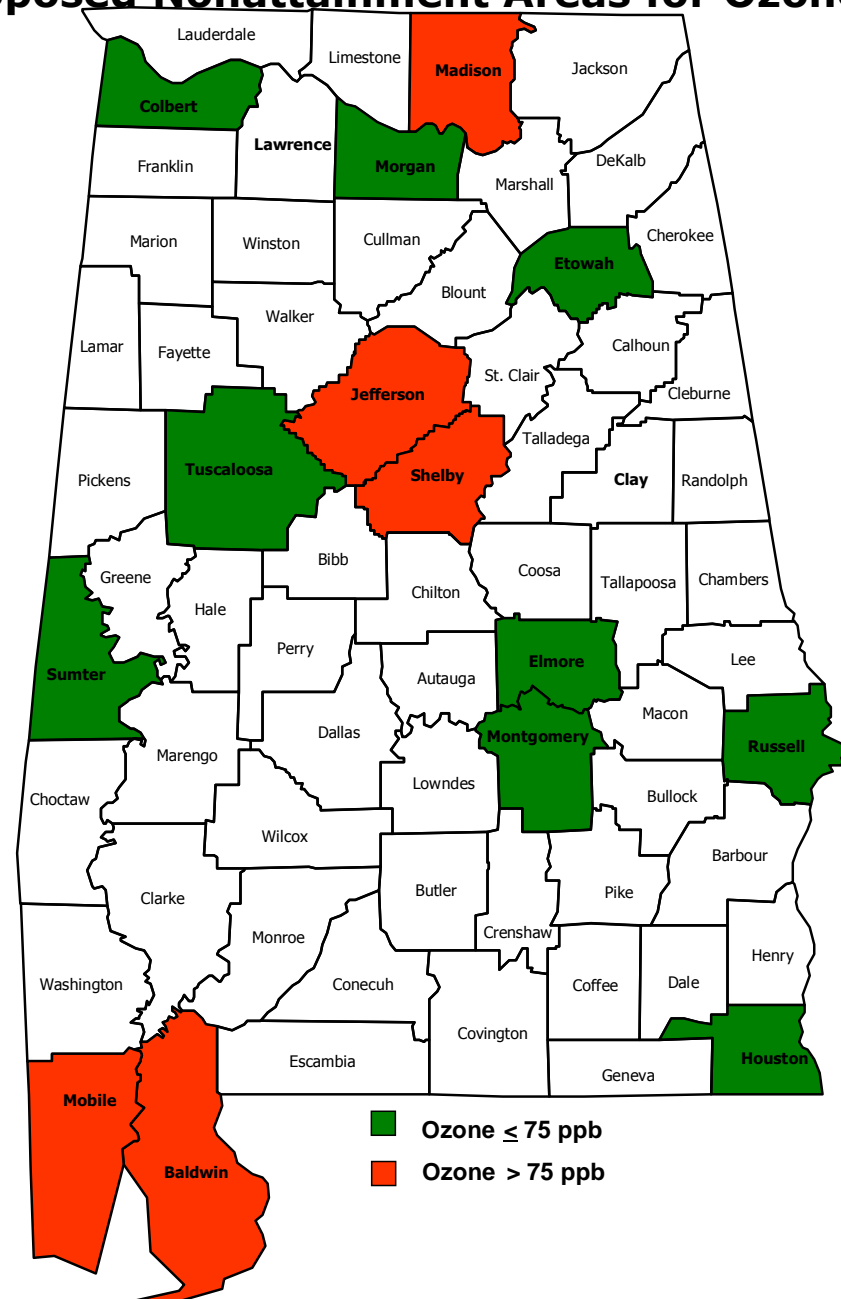
- Implementation Schedule:
  - Effective Date – May 2008
  - States submitted NAA Designation Recommendations to EPA in March 2009 (*based on 2006-2008 data*)
  - Final EPA Designations – March 2010
  - Plans Due – March 2013

*Litigation could change this schedule.*

# ADEM

## Alabama's Input to EPA on Nonattainment Areas

## Alabama's Input to EPA on Extent of Proposed Nonattainment Areas for Ozone





## Revised Ozone NAAQS

- EPA will make an attainment decision using data from 2007-2009, at the earliest.
- The list of violating counties may change.



## Revised Ozone NAAQS

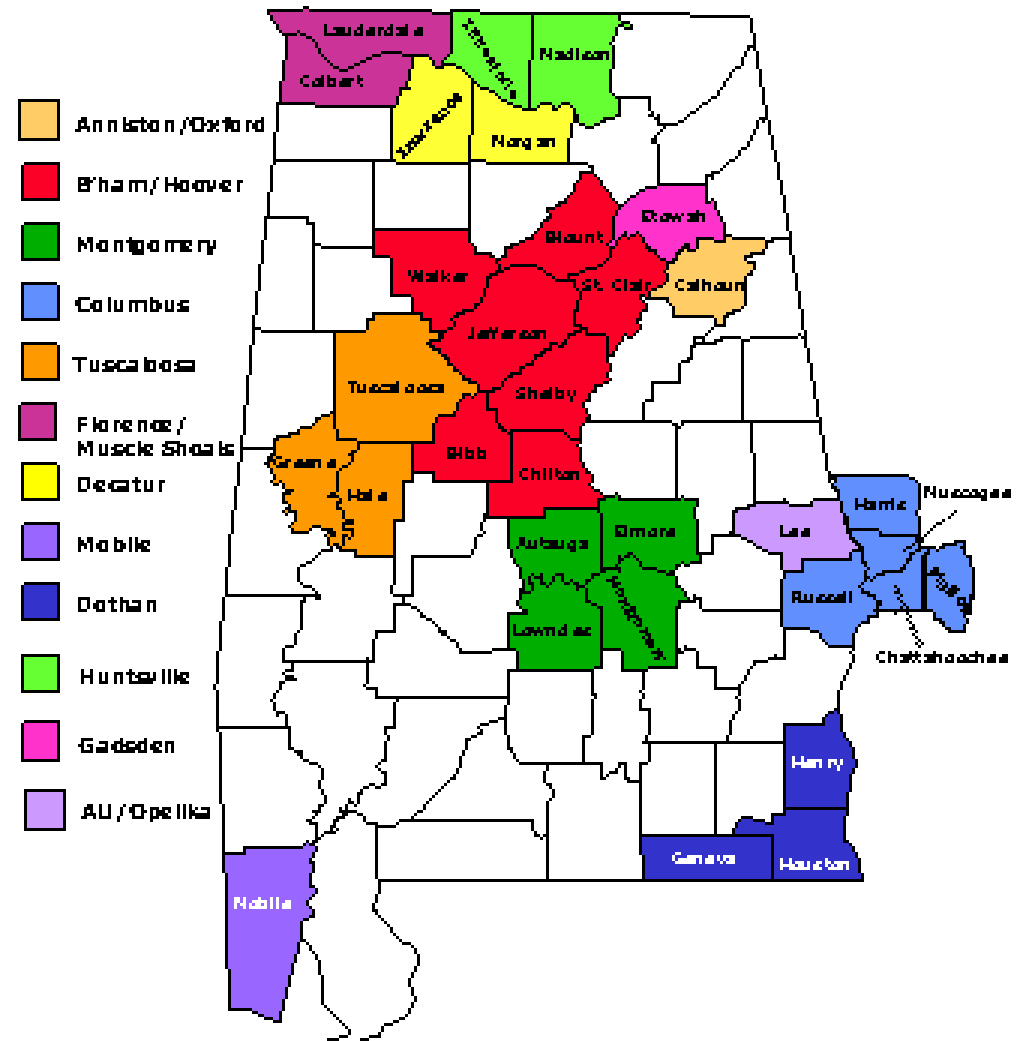
- EPA's presumptive ozone nonattainment area boundaries can include:
  - all counties in a consolidated metropolitan statistical area (CMSA) with a violating ozone monitor, and
  - all counties in a metropolitan statistical area (MSA) with a violating ozone monitor.



# Metropolitan Statistical Areas

## METROPOLITAN STATISTICAL AREAS

Based on 2000 Census Updated to 2006

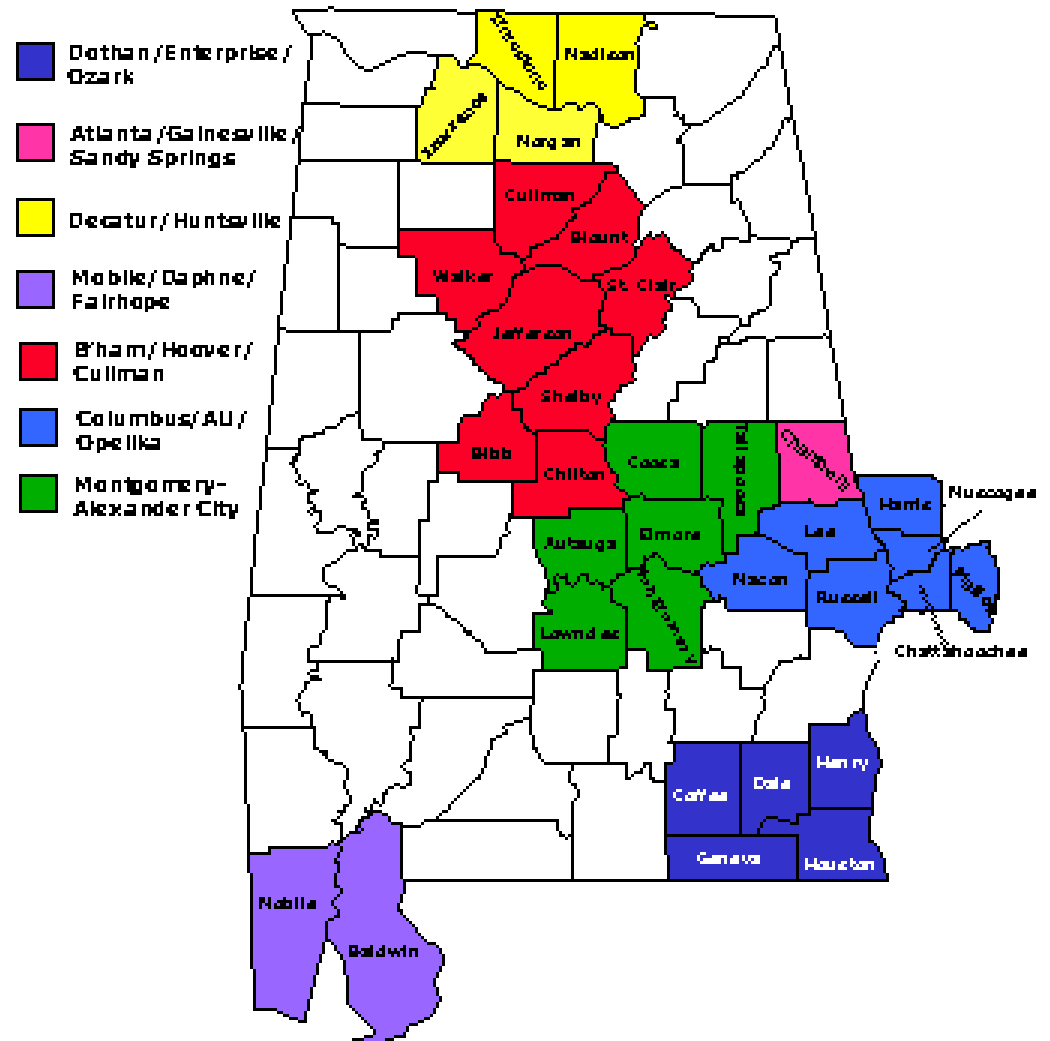




# Combined Statistical Areas

## COMBINED STATISTICAL AREAS

Based on 2000 Census Updated to 2006







# Revised Ozone NAAQS

Most areas  
will rely on  
nationally mandated control measures  
to achieve the revised ozone NAAQS.





# Nonattainment Issues

Issues to be addressed:

- ✓ Revised Ozone National Ambient Air Quality Standard (NAAQS)
- Fine Particle NAAQS

Fine Particulate Matter is:

- A general term used for a mixture of solid particles and liquid drops in the air.
- PM-fine - Particles which have aerodynamic diameters less than 2.5 micrometers.



## Annual PM<sub>fine</sub> NAAQS

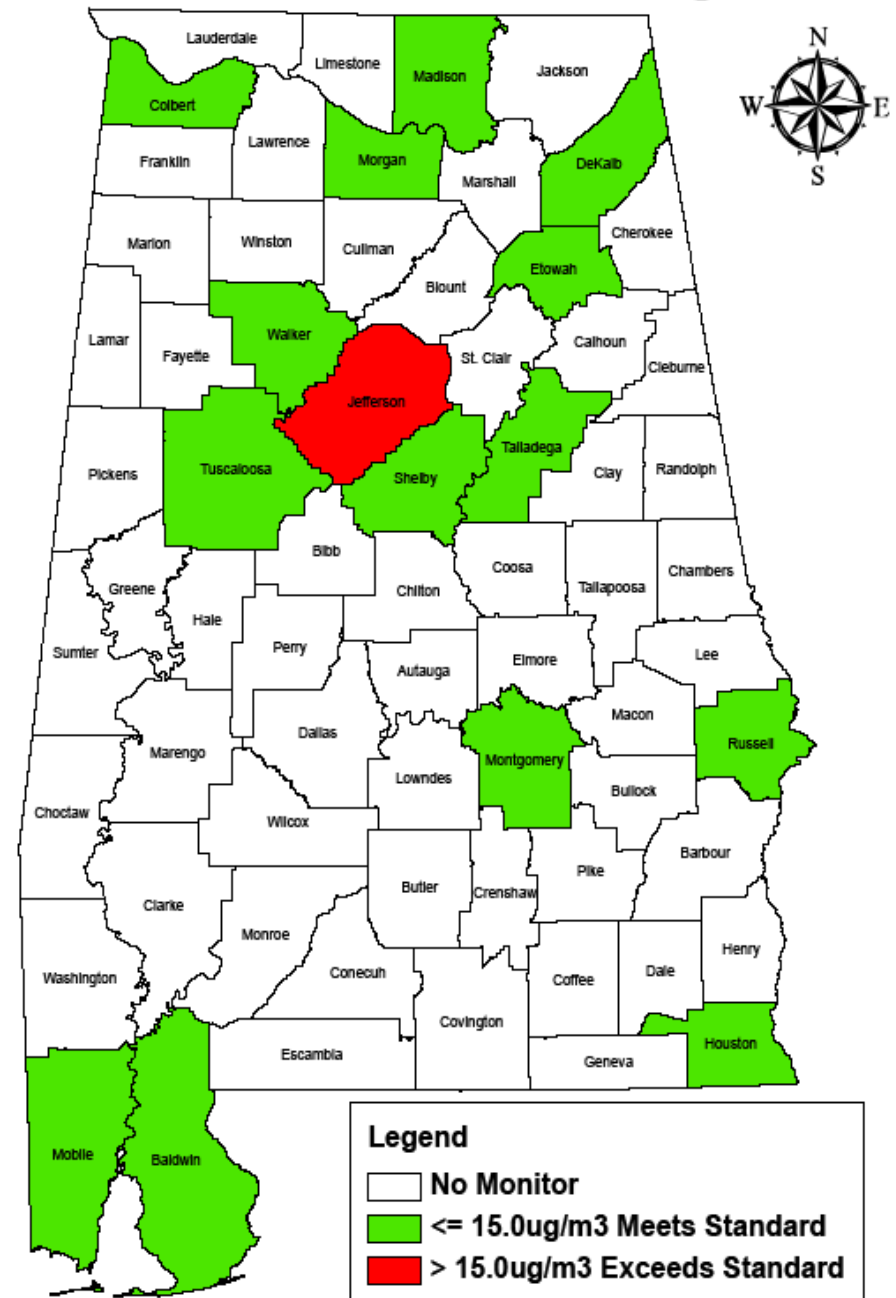
- All areas meet the annual standard except Jefferson County.
- Annual Standard =  $15 \mu\text{g}/\text{m}^3$
- Jefferson Co. 3 Year Avg. =  $17.3 \mu\text{g}/\text{m}^3$

*Highest concentrations are confined to a small area of Jefferson County.*

# ADEM

## Counties Over the Annual PM<sub>2.5</sub> NAAQS – 2006-2008.

### 2006-2008 Annual PM<sub>2.5</sub> Monitoring Data





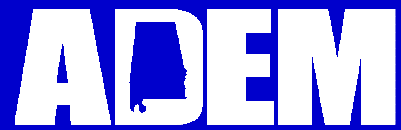
## Annual PM<sub>fine</sub> NAAQS

- EPA designated Jefferson, Shelby, and a small portion of Walker counties as nonattainment effective April 5, 2005.
- A portion of Jackson County was designated as part of the Chattanooga nonattainment area.

# ADEM

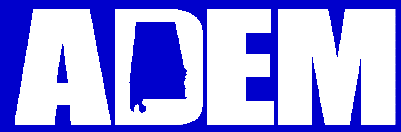
## Current Annual PM<sub>2.5</sub> Nonattainment Areas





## Annual PM<sub>fine</sub> -Birmingham

- Attainment plan has been submitted to EPA.
- Attainment plan requires:
  - Local emissions reductions
  - Regional emissions reductions from CAIR and national mobile source controls.
- The plan projects attainment beginning in 2012.



## Revised 24-hour PM<sub>fine</sub> NAAQS

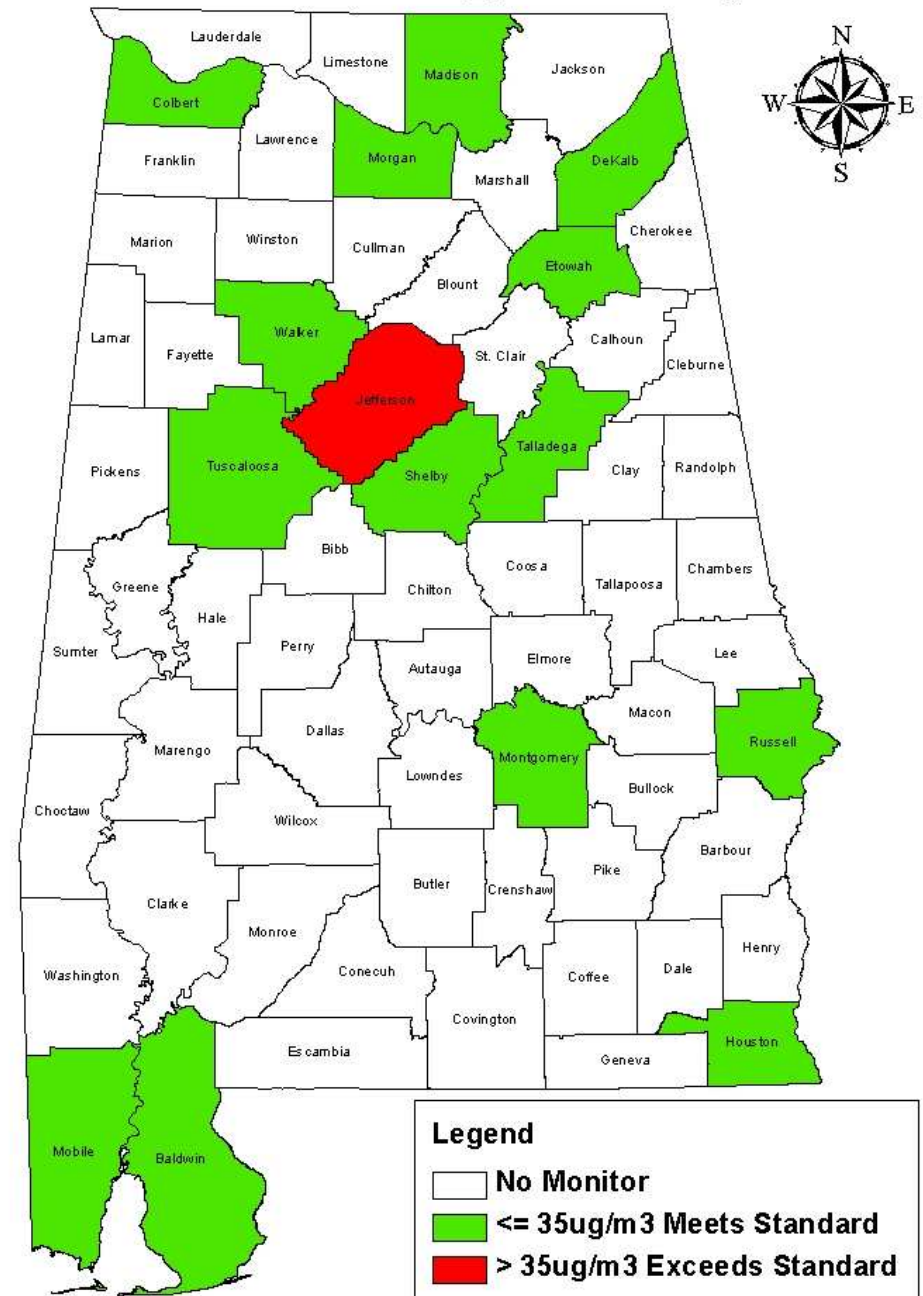
- For 2006-2008 only Jefferson County exceeds the new 24-hour NAAQS.
- 24 Hour NAAQS = 35 ug/m<sup>3</sup>.
- Jefferson (Birmingham) = 39 ug/m<sup>3</sup>



# ADEM

Counties Over the  
New 24-Hour  
PM<sub>fine</sub> NAAQS

## 2006-2008 24-Hour PM<sub>2.5</sub> Monitoring Data





## 24-Hour PM<sub>fine</sub> Designations

- EPA plans to issue final designations in the near future.
- EPA's designations will be based on the most recent 3-years of data (2006-2008).



# Revised 24-hour PM<sub>fine</sub> NAAQS

- Most areas, including Alabama, will rely on nationally mandated control measures already on the books to achieve the standard.
- Some local emissions reductions may be required in Birmingham.

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